



West Virginia Department of Environmental Protection
Division of Air Quality

Title V Operating Permit Revision

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

For Administrative Amendment Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Action Number: AA02 SIC: 2426
Name of Permittee: Armstrong Hardwood Flooring Company
Facility Name/Location: Beverly Mill
County: Randolph
Facility Address: P.O. Box 160, Beverly, WV 26253

Description of Permit Revision:

This administrative amendment involves relocation of flooring mill equipment to improve process efficiency. The changes impact the air flow rates to some baghouses. No physical changes will be made to the affected baghouses. Additionally, the current permitted emissions from the baghouses Nos. 1, 2, 3, 4, 5, and 6 were previously based on incorrect air flows. Therefore, the emission limits in permit conditions 5.1.1 and 6.1.1 were changed to reflect the true design air flow rate to each baghouse.

Initial Title V Permit Information:

Permit Number: R30-08300025-2013
Effective Date: February 5, 2013
Expiration Date: January 22, 2018

Directions To Facility:

From Charleston take Interstate 79 North to exit 99, proceed east on US Route 33 to Elkins. From Elkins take US Route 250 South, the facility is located on the right of and adjacent to US Route 250 approximately 1.6 miles south of Beverly in Randolph County.

THIS PERMIT REVISION IS ISSUED IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL ACT (W.VA. CODE §§ 22-5-1 ET SEQ.) AND 45CSR30 - "REQUIREMENTS FOR OPERATING PERMITS." THE PERMITTEE IDENTIFIED AT THE FACILITY ABOVE IS AUTHORIZED TO OPERATE THE STATIONARY SOURCES OF AIR POLLUTANTS IDENTIFIED HEREIN IN ACCORDANCE WITH ALL TERMS AND CONDITIONS OF THIS PERMIT.



William F. Durham
Director

July 20, 2015
Date Issued

1.0 Emission Units and Active R13, R14, and R19 Permits

1.1 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
001-01	S08	No. 1 Wood-Fired Boiler	1990	48.8 MMBtu/hr	Cyclone No. 2, Dry ESP (008)
001-02	S08	No. 2 Wood-Fired Boiler	1990	48.8 MMBtu/hr	Cyclone No. 2, Dry ESP (008)
001-03	S30	Propane Gas - Fired Boiler	2007	96.7 MMBtu/hr	N/A
002-01	S03	No. 1 Finish Line	1993	8,500 ft ² /hr	No. 1 Baghouse (003)
002-01A	S12.01	No. 1 Finish Line – Stain Rollcoaters (2) applying stain and/or water)	1993	10.11 gal/hr (stain)	<u>Baghouse No. 1 (003)</u> N/A
002-01B	S13.01	Vacuum Stain Table	1993	N/A	N/A
002-01C	S14.01	No. 1 Finish Line – Stain Oven	1993	1.6 MMBtu/hr	N/A
002-01D	S15.01	UV Lights	1993	300 Watts	N/A
002-01D.1	S15.01.1	No. 1 Finish Line – DE-Nibbers (3 Head)	2009	NA	Baghouse No. 1 (003)
002-01D.2	S15.01.2	Fill Coater	2009	6 gal/hr	N/A
002-01D.3	S15.01.3	UV Oven	2009	300 Watts	N/A
002-01D.4	S15.01.4	No. 1 Finish Line – DE-Nibbers (3 Head)	1993	NA	Baghouse No. 1 (003)
002-01D.5	S21.01.1	No. 1 Finish Line – DE-Nibbers (3 Head)	1993	NA	Baghouse No. 1 (003)
002-01E	S16.01	No. 1 Finish Line – Sealer #1	1993	6.0 gal/hr	N/A
002-01F	S17.01	UV Lights, Exhaust A	1993	175-275 MJ	N/A
002-01G	S18.01	UV Lights, Exhaust B	1993	175-275 MJ	N/A
002-01H	S19.01	No. 1 Finish Line – Sealer #2	1993	6.0 gal/hr	N/A
002-01I	S20.01	UV Lights, Exhaust A	1993	450-650 MJ	N/A
002-01J	S21.01	UV Lights, Exhaust B	1993	450-650 MJ	N/A
002-01K	S22.01	No. 1 Finish Line – Topcoat Rollcoater 1	1993	6.0 gal/hr	N/A
002-01L	S23.01	UV Lights, Exhaust A	1993	175-275 MJ	N/A
002-01M	S24.01	UV Lights, Exhaust B	1993	175-275 MJ	N/A

Control Devices

Control Device ID	Emission Point ID	Control Device Description	Year Installed	Design Capacity
008	S08	Dry Electrostatic Precipitator – Services No. 1 & No. 2 Boilers	2003	9.6 KW
003	S03	No. 1 Baghouse (Services No. 1 and No. 2 Finish Line Sanders)	1993	79,556 ACFM
004	S04	No. 2 Baghouse (Services No. 2 ¹ & No. 5 2 Flooring Mill Lines & <u>Flooring Mill Rough End</u>)	1990	50,373 ACFM
005	S05	No. 3 Baghouse (Services No. 5 & No. 6 Flooring Mill Lines)	1990	52,227 ACFM
006	S06	No. 4 Baghouse (Services No. 3 Wood Hog (No. 3 Cyclone))	1990	27,489 ACFM
007	S07	No. 5 Baghouse (Services No. 2 Wood Hog (No. 4 Cyclone) & No. <u>3 4 Flooring Mill Line & Visually Distressed Flooring Line</u>)	2003	44,628 ACFM
009	S09	No. 6 Baghouse (Services No. 4 Wood Hog (No. 1 Cyclone) & No. 1 Wood Hog (No. 5 Cyclone)) & <u>Main Relay Line (No. 6 Cyclone)</u>	2005	59,748 ACFM
010	S10	No. 7 Baghouse (Services No. <u>1 3 Flooring Mill Line, Rough End & No. 1 Wood Hog (No. 7 Cyclone)</u>)	2005	52,990 ACFM
011	S11	No. 8 Baghouse (Services Flooring Mill Rough End)	2005	68,597 ACFM
012	S09	No. 1 Cyclone (From No. 4 Wood Hog to Silo II)	1990	24,100 ACFM
018	S05	No. 2 Cyclone (Boilers/ESP to Silo III)	1990	27,489 ACFM
013	S06	No. 3 Cyclone (From No. 3 Wood Hog to Silo III)	2004	6,500 ACFM
014	S07	No. 4 Cyclone (From No. 2 Wood Hog to No. 1 Cyclone)	2005	16,157 ACFM
016	S09	No. 5 Cyclone (From No. 7 Cyclone (No. 1 Wood Hog) to Silo I)	2005	4,768 ACFM
017	S09	No. 6 Cyclone (From No. 1, 2, 3, 4, & 5 Baghouses to No. 6 Baghouse)	2005	27,490 ACFM
015	S10	No. 7 Cyclone (From No. 1 Wood Hog, Exhaust to No. 7 Baghouse)	2005	24,100 ACFM

1.1. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-1147Q P	<u>May 8, 2015</u> May16, 2014

5.0 Source-Specific Requirements [Flooring Mill (003-01), Visual Distressed Flooring Lines (003- 02) & (003-03)]

5.1. Limitations and Standards

5.1.1. Particulate matter emissions from each of the stacks venting from the baghouses shall be limited as follows:

Emission Unit	Emission Point ID No.	Maximum Emission Rates			
		PM ⁽¹⁾		PM ₁₀ ⁽²⁾	
		lb/hour	TPY	lb/hour	TPY
No. 2 Baghouse (004)	S04	<u>2.16</u> 2.37	<u>9.46</u> 10.38	<u>0.43</u> 0.47	<u>1.89</u> 2.08
No. 3 Baghouse (005)	S05	<u>2.24</u> 2.37	<u>9.80</u> 10.38	<u>0.45</u> 0.47	<u>1.96</u> 2.08
No. 4 Baghouse (006)	S06	<u>1.18</u> 2.37	<u>5.16</u> 10.38	<u>0.24</u> 0.47	<u>1.03</u> 2.08
No. 5 Baghouse (007)	S07	<u>1.91</u> 3.87	<u>8.38</u> 16.96	<u>0.38</u> 0.77	<u>1.68</u> 3.40
No. 6 Baghouse (009)	S09	<u>2.56</u> 2.57	<u>11.22</u> 11.30	0.51	<u>2.24</u> 2.30
No. 7 Baghouse (010)	S10	2.27	9.95	0.45	1.99
No. 8 Baghouse (011)	S11	2.94	12.88	0.59	2.58

1. Compliance with these particulate limits assures compliance with 45CSR§7-4.1.

2. Based on the assumption that PM₁₀ is 20% of the PM emitted.

[45CSR13, Permit No. R13-1147 (Condition 5.1.1.)]

5.1.2. All cyclone systems (control device IDs: 012 – 017) shall be maintained and operated in accordance with manufacturer's performance specifications.

[45CSR13, Permit No. R13-1147 (Condition 5.1.2.)]

5.1.3. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7 of 45CSR7.

[45CSR§7-3.1.; 45CSR13, Permit No. R13-1147 (Condition 5.1.3.)]

5.1.4. No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to subsection 5.1 of 45CSR7 is required to have a full enclosure and be equipped with a particulate matter control device.

[45CSR§7-3.7.; 45CSR13, Permit No. R13-1147 (Condition 5.1.4.)]

6.0. Source-Specific Requirements [Finish Lines (002-01 & 002-02)]

6.1. Limitations and Standards

- 6.1.1. Particulate matter emissions from the stack venting from Baghouse No. 1 shall be limited as follows:

Emission Unit	Emission Point ID No.	Maximum Emission Rates			
		PM ⁽¹⁾		PM ₁₀ ⁽²⁾	
		lb/hour	TPY	lb/hour	TPY
003 (No. 1 Baghouse)	S03	<u>3.41-2.37</u>	<u>14.93-10.38</u>	<u>0.68-0.47</u>	<u>2.99-2.08</u>

(1) Compliance with these particulate limits assures compliance with 45CSR§7-4.1.

(2) Based on the assumption that PM₁₀ is 20% of the PM limit.

[45CSR13, R13-1147 (Condition 6.1.1.)]

- 6.1.2. The hourly emission rate of VOCs from the two (2) finishing lines (Source ID #s 002-01, 002-02) including cleanup solvents shall not exceed 88.54 lb/hr.

[45CSR13, R13-1147 (Condition 6.1.2.)]

- 6.1.3. The annual emission rate of VOCs from the two (2) finishing lines (Source ID #s 002-01, 002-02) including cleanup solvents shall not exceed 204.5 TPY.

[45CSR13, R13-1147 (Condition 6.1.3.)]

- 6.1.4. In order to meet the facility-wide HAP limitations specified in 3.1.1., HAP emissions associated with the finishing lines (e.g., stain, sealer, fill coating, topcoat, cleaning solvents, etc.) shall be maintained at 5.64 tons per year of any single HAP and 7.94 tons per aggregated HAPs.

[45CSR13, R13-1147 (Condition 6.1.4.)]

- 6.1.5. The maximum processing rate to Finish Line #1 (Source ID# 002-01) and Finish Line #2 (Source ID# 002-02) shall not exceed 8,500 ft²/hr for each finishing line. Compliance with the Maximum Yearly processing rates shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of material processed at any given time during the previous twelve consecutive calendar months.

[45CSR13, R13-1147 (Condition 6.1.5.)]

- 6.1.6. The Soft Scrape Cell (Source ID# 002-04A) shall be connected to Finish Line #1 (Source ID#002-01) and shall only be operated when one of the denibbers (Source ID# 002-01D.1) on Finish Line #1 (Source ID#002-01) is not operating.

[45CSR13, R13-1147 (Condition 6.1.6.)]

- 6.1.7. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7 of 45CSR7.

[45CSR§7-3.1.; 45CSR13, R13-1147 (Condition 6.1.7.)]